



João Barbosa Rodrigues: lore and practices

The construction of a scientific biography: João Barbosa Rodrigues, a 19th-century naturalist

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Abstract

The well-known Brazilian naturalist, João Barbosa Rodrigues, was a typical representative of the 19th-century illustrated man who belonged to the Imperial court of Rio de Janeiro. Based on earlier findings I showed the role of the baron Guilherme Schuch de Capanema in shaping Barbosa Rodrigues' scientific career. Through new evidences of his international dialogue, I analyze how Barbosa Rodrigues successfully self-fashioned himself as a legitimate man of Science according to the patterns and profiles presented at the Brazilian society at that time.

Key words: Anders Regnell, baron of Capanema, botany, iconography of orchids, scientific career, scientific network.

Resumo

João Barbosa Rodrigues, conhecido naturalista brasileiro, foi um típico representante do homem ilustrado do século XIX da corte imperial do Rio de Janeiro. Com base em pesquisas anteriores mostrei o papel do barão Guilherme Schuch de Capanema na formação da sua carreira científica. Por meio de novas evidências do diálogo internacional que estabeleceu, analiso como Barbosa Rodrigues conseguiu construir sua identidade como legítimo homem de ciência de acordo com os padrões e perfis apresentados na sociedade brasileira da época.

Palavras-chave: Anders Regnell, barão de Capanema, botânica, iconografia de orquídeas, carreira científica, redes internacionais.

Introduction

“With Barbosa Rodrigues disappeared the last representative of a pleiad of excellent botanists from Rio de Janeiro, who through numerous publications and collections contributed to the knowledge of the flora of Brazil.”

This is how Herman von Ihering (1850–1930) describes his tribute to João Barbosa Rodrigues (1842–1909) in the *Revista do Museu Paulista*, Ihering, then the director of the Museu Paulista, analyzes Barbosa Rodrigues' scientific achievements, successes and mistakes, and controversies in various fields of knowledge and concludes: “We make these considerations not to overshadow the picture outlined here of the work of the Brazilian naturalist, but only in the interest of truth.” After such a fruitful life, having closed

the literary and scientific polemics that were in plenty in this fight we call life, we have the right and the obligation to examine without prevention the results of such noble aspirations and efforts. (Ihering 1911: 33).

Barbosa Rodrigues died on March 6, 1909, as director of the Botanical Garden of Rio de Janeiro, regarded in scientific circles in the country and abroad as one of the most important names in Brazilian science.

But how was the formation of this man of science so honored at his death? Trying to unveil Barbosa Rodrigues' early interest in botany has always been a difficult task because he neither left us a diary or notebook in which to follow his initial steps nor a memoir of his childhood and early scientific interest.

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When Barbosa Rodrigues presented himself as a naturalist to the Brazilian scientific community, he was only known in the academic circle as a controversial writer of short stories and poems, and the secretary of the *Colégio Pedro II*. (Netto s/d)

Biographical data about Barbosa Rodrigues are recovered through different writings by academics or family members and often bring fantastic and unreflective versions of his trajectory. His first male child was named after him and served as his direct assistant until his father's death. Because they share the same name, information regarding the son is sometimes attributed to the father as is the case of João Barbosa Rodrigues' academic background.

Dilke de Barbosa Rodrigues Salgado, Barbosa Rodrigues' granddaughter, wrote about the family history in a commemorative book at the centennial of Barbosa Rodrigues' birth (Salgado 1945). Dilke Salgado, daughter of João Barbosa Rodrigues Junior (1872–1931), wrote about her grandfather's ancestors based on memories passed down to her by her father. In addition to the family history, Salgado used the writings of Barbosa Rodrigues to discuss his grandfather's early career in literature and his entry into the world of science.

Flora Castaño Ferreira, João Barbosa Rodrigues' great-granddaughter, was another family member who recalled stories and memories of him told by her father. Flora was the granddaughter of Paulo Campos Porto and Maria Barbosa Rodrigues, one of Barbosa Rodrigues' children.¹ Her father, Campos Porto, served as secretary of the Botanical Museum of Amazonas during João Barbosa Rodrigues' tenure as director. He also followed Barbosa Rodrigues' footsteps and directed the Botanical Garden of Rio de Janeiro from 1933 to 1938 and again from 1951 to 1961. The article written by Flora Ferreira was in collaboration with Scott A. Mori, a botanist at The New York Botanical Garden and retraced the life history of the Brazilian naturalist, emphasizing his contribution as a botanist (Mori & Ferreira 1987). The article's novelty was the presentation of unpublished ethnographic and zoological drawings by Barbosa Rodrigues in the possession of her great-granddaughter. Ferreira also told us about the loss of four large boxes

containing Barbosa Rodrigues' correspondence, which she had in her possession but, unfortunately, ended up being discarded by a relative. Flora Ferreira and Scott Mori relied heavily on data from various papers published about Rodrigues in their article. The previous work of Barbosa Rodrigues' granddaughter, Dilke Salgado, was not cited, and some mistakes found in prior publications about him are repeated in the paper.

Barbosa Rodrigues' early career in the literature demonstrated his contesting and polemic side by refusing to accept criticism and publishing his disagreements in newspapers of the time.² Barbosa Rodrigues, previously known as a man dedicated to letters, presented himself to the national scientific community at the age of 28 with a completed work about Brazilian orchids, in three volumes richly illustrated, with descriptions in Latin and Portuguese (Sá 2001).

Despite the perfection of the work, it was received with astonishment and suspicion by the scientists of the time. The botanist Ladislau Netto (1838–1894), chief of the botanical section of the National Museum, reported that in 1868, Barbosa Rodrigues had communicated to his acquaintances that he was going to leave Rio de Janeiro for a few months to work on a stud farm in Minas Gerais. To Netto's surprise, after six months away, Rodrigues returned to Rio de Janeiro in possession of a collection of orchids gathered in Minas Gerais and with a project for an illustrated book with taxonomic descriptions. One year later, Barbosa Rodrigues presented an impressive orchid work to the Brazilian community. What was behind Rodrigues' sudden change of professional interest? And how did he manage to complete such a large work on a botanical group with which he was unfamiliar in only a year? (Netto s/d).

It is evident to me that Barbosa Rodrigues had already been working on this work for some time, with the encouragement of the Baron of Capanema. As we shall see in the course of this work, Barbosa Rodrigues' trip to meet Regnell, a Swedish physician and naturalist established in Minas Gerais, was previously arranged by Capanema. When we follow Barbosa Rodrigues's footsteps through the literature written about him, some threads start to be united, and some

¹ João Barbosa Rodrigues had 14 children. One with the second marriage and 13 with the third, namely: Olímpia, Constança, Maria, João, Isabel, Gastão, Hjalmar, Raul, Hércia, Sara, Oscar, Margarida and Pedro (Salgado 1945: 241).

² In response to the negative evaluation of one of his tales by members of the Brazilian Polymathic Institute for his entry into the said Institute, Barbosa Rodrigues publicly contests the members' evaluation in the *O Mercantil* September 19, 1862.

hypotheses are constructed. Barbosa Rodrigues's granddaughter, Dilke Salgado, recounted his life from his childhood in Minas to his move to Rio de Janeiro to finish his education, allowing us to understand his first professional interest. She also contributed to the understanding of Barbosa Rodrigues's move from literature to science through the social networks he established while living in Rio de Janeiro's court.

From a man of letters to scientist and artist

João Barbosa Rodrigues received at birth the same name as his father, a merchant from the Minas region who left for Rio de Janeiro during the 1842 Liberal Revolt. João was born on June 22, months after the family had moved to the city. The family, who remained in Rio, had another child, a little girl named Alexandrina, Barbosa's sister. With the death of his spouse, Maria Carlota da Silva Santos, Barbosa Rodrigues' father returned to Minas with his two children. There, he married again starting over a new life as a merchant. Barbosa Rodrigues and his sister were raised in the village of São Gonçalo da Campanha do Rio Verde³ by their stepmother, Maria Horta Barbosa, as well as their half-brothers João Batista and Arthur. According to Salgado (1945: 21), his brother, João Batista, was a classmate of Victor Meirelles and Pedro Américo at the School of Fine Arts in Rio de Janeiro.

According to Salgado (1945), Barbosa's initial studies in Minas were of mathematics, natural history, language and literature, and since he was 13 years old, he already wrote verse.⁴ Barbosa Rodrigues continued his studies at the Commercial Institute, in Rio de Janeiro. Created by the decree no. 1,1763 of May 14, 1856, the Institute began operating in 1858 on the premises of *Colégio Pedro II*. Few students enrolled in the initial years of the Institute, which led to a restructuring of its statute with a new decree published in February 1861 under no. 2,741. The success was immediate, with more than 300 students enrolled that year. Tuition that had previously been charged was made

free, and students had to show success in the course after three months, or else be eliminated (Ribeiro & Cruz Terra 2018). Upon finishing the course, Barbosa Rodrigues started working as secretary of the Institution and, later, he served as secretary of the *Colégio Pedro II* (Dória 1997)⁵.

It was in Rio de Janeiro that Barbosa Rodrigues began an intense literary production. In 1858, when he was only 16 years old, he published his first book of poetry, *Threnos de Amor*, and, in 1859, he was invited to be part, as an editor, of the newspaper *Semana dos Meninos*, a juvenile literature newspaper launched that year. Besides the juvenile newspaper, Barbosa also began to publish in newspapers of the time such as *O Mercantil*, *Sul de Minas*, and *Hemeródromo da Juventude*, among others. In 1861, he published *Memórias de uma Costureira* and Orlina's book, dedicated to his teacher José Albano Cordeiro. In the book's preface, Cordeiro wrote "This literary essay clearly shows that Mr. Barbosa Rodrigues, if he continues to drink in our classics the fertile thoughts that he so admires, will become one of our glories. (Salgado 1945: 25). In 1864, *Contos Noturnos* (Nocturnal Tales) was published in Paris, a work that caused a great polemic in 1862 with the members of the Brazilian Polymathic Institute.

The young Barbosa Rodrigues circulated in various artistic, literary, and scientific circles, interacting with important names of Brazilian intellectuality at the court of Rio de Janeiro.

The *Colégio Pedro II* was an important meeting point for the Brazilian and foreign intellectuality. It was the time of great nationalism, of the exaltation of the exotic Brazilian landscape, of the appreciation of the indigenous populations, and the demand for the country's progress. (Sá 2006). The national theme was incorporated in the construction of the country's identity. The literate man was as eclectic as possible, differently of the ideal of the scientist as the specialist in a specific knowledge area. As pointed out by Sá (2006: 36) "One could not conceive as a 'wise man' someone who cultivated only one genre of studies. They perceived themselves as possessing an acute curiosity, untiring and interested in advancing humanity as much as in unveiling the mysteries of nature." To this end, the literate

³ In 1878, the village is elevated to the status of town and renamed São Gonçalo de Sapucaí.

⁴ Salgado cited as Barbosa's teachers the poet Casimiro Correia de Almeida Portugal, the baron of Rio Verde, João Antônio de Lemos, to whom Barbosa later dedicates an album of literary reminiscences entitled "Saudades de S. Gonçalo", José Albano Cordeiro, and Guilherme Such de Capanema. (Salgado, 1945: 22). All of them had a great influence on Barbosa Rodrigues both in his literary and later scientific incursions.

⁵ Barbosa Rodrigues also served as a drawing teacher at the college, but I have been unable to find sources with the date he joined and his name on the college's faculty roster.

culture of the period was inseparable from the intention to understand and modify nature and society together and through the knowledge about climates, customs, races, flora and fauna, and the environment (Sá 2006: 37). And it was in such intellectual environment that Barbosa Rodrigues met his new mentor and patron who would completely change the course of his life: the Baron of Capanema, Guilherme Schüch.

Barbosa Rodrigues' literary publications ended in 1864. In this period Brazil was going through difficult times. The Paraguayan War had already started, and Barbosa Rodrigues was a widower of his first wife. He had married Sofia Hendricks in 1862, at age 20, but the marriage lasted only a few months when his wife died of tuberculosis. Four years later, in 1866, he remarried and a year later lost his wife, being left with a small child, Celina. Months after the death of his last wife, the young father knew the woman who stayed with him until the end of his life, marrying for the third time Constança Eufrosina (Salgado 1945: 61).

His interests were changing. The awakening to natural history came together with his artistic and literary skills. His easy style of writing and his mastery of French and Latin were fundamental to propel his career as a taxonomist in the area of botany. In addition to his aptitudes, the closeness to Capanema baron's would help him to incorporate himself into the scientific milieu and to leverage his career.

The return to Minas and the consolidation of his work on orchids

In 1868, when Barbosa Rodrigues left for Minas Gerais, he did not specify to his acquaintances the exact place he was going and the proper motivation. The strangest reaction he gave to all was when he returned to Rio de Janeiro after six months of absence with a project of a great album on Orchidacea which he presented to the Brazilian scientific society a year later (Sá 2001: 904).

Capanema's support can also be associated with Barbosa Rodrigues' departure to a stud farm. During the regency period, Pedro II appointed Roque (Rochus) Schüch, the father of Guilherme Capanema, to manage the Imperial Stud Farm in Cachoeira do Campo, Minas Gerais. Rochus had died just after the regency ended in 1844 but left his

son "vast usable lands" in the surrounding area. (*A União* 1889: 1). The stud farm was still operating precariously when Barbosa Rodrigues returned to Minas, and Barbosa Rodrigues had Capanema's lands to make his collections.

Barbosa Rodrigues visited at that time Anders Frederick Regnell, a Swedish physician and naturalist established in this city, in the south of Minas, where he worked as doctor and botanist. It is unknown whether he went to the stud farm or if Rodrigues went directly to Caldas to meet Regnell.

At that time, Regnell had received a young Swedish, Salomon Ehberth Henschen, to work in his botanical collection and participate in fieldwork to collect botanical specimens. Regnell was fascinated by Brazilian flora and hired several compatriots to assist him in collecting and preparing his collection for shipment to Sweden, where he planned to establish a "Brazilian Institution." The Natural History Museum in Stockholm was chosen to house his collections, which became known as *Herbarium Brasiliense Regnellianum* (Concha Quezada 2012: 99). Regnell also sent botanical specimens to several European researchers, such as Carl Friedrich von Martius, George Bentham, Alphonse de Candolle, Heinrich Gustav Reichenbach, Joseph Dalton, among others.

Barbosa Rodrigues spent some time in Caldas collecting with Regnell and Henschen and observing the preparation of the botanical collection. The time spent together resulted in a friendship with the two Swedish naturalists.

In Caldas, Barbosa Rodrigues made a collection of orchids and later described and honored one of his colleagues by naming two new species after him: *Habenaria henscheniana* Barb. Rodr. and *Epidendrum henschenii* Barb. Rodr. One of the orchids he collected with Henschen was displayed at the Floricultural Exhibition in 1871.⁶ He described it as *Cattleya princeps* Barb. Rodr., and it was shown with a watercolor and descriptions, being awarded at the show. *Cattleya walkeriana* Gardner is now used as a synonym.

The impression that Barbosa Rodrigues left on the two Swedes was expressed by Regnell in a letter to his friend Isak Gustaf Clason, in 1871, when the news of the book written by Barbosa had

⁶ On November 16, 1871, a Floriculture Exhibition was organized at the Passeio Público by the Sociedade Auxiliadora da Indústria Nacional, being the first of its kind in South America.

reached Europe (Sá 2001: 910): “Barbosa could be a good painter, but no great botanist, and how or when could he be?” (Lindberg 2019: 164). For Regnell, the difficulty was access to herbaria and libraries - a crucial impediment to the training of the botanist. Regnell told his friend: “here in Brazil one collects but does not describe because they have no access to herbaria or libraries for comparison and control” (Concha Quezada 2012: 99).

Barbosa Rodrigues returned to Caldas a few years later, after his three-and-a-half-year stay in the Amazon as member of an Imperial Government Commission. He stayed with Regnell for a few months, collecting and herborizing with him. Both had the same interests, and the Swedish doctor’s initial impression of Barbosa changed over time. Their friendship grew so much that Regnell baptized one of Barbosa Rodrigues’ children (Concha Quezada 2012: 123).

In another letter to his friend Clason, written in May 1877, Regnell comments on Barbosa Rodrigues’ visit later to Caldas. He claims that the Brazilian botanist had been with him for 5 to 6 months and had discovered many new things. That Barbosa assisted him in collecting plants, even in difficult-to-reach areas. Regnell explained that he had to go up the “*Serra*” (hill) because many orchids lived in a specific region and could not be found simply by describing the location. At 70 years old, despite his illnesses, Regnell climbed the mountain range on a difficult ride. He admired Barbosa’s technical knowledge and thought his drawings were beautiful and well-executed (Lindberg 2019).

During his stay with Regnell, Barbosa published a description of a new genus of orchid *Gigliolia* in the newspaper *O Caldense*, on March 25, 1877, in honor of Enrico H. Giglioli.⁷

A new perception at the Brazilian botanist: the peer acceptance

Already with a new opinion on Barbosa and enthusiastic about his work, Regnell decided to support him in the publication of his work on orchids by writing to his German friend, the leading specialist in Orchid taxonomy, Heinrich Gustav Reichenbach (1823-1883). In a reply letter

to Regnell dated March 22, 1877, the German botanist wrote:

“My dear dr. Regnell

The object of my present letter is to talk to you about Mr. Barbosa Rodrigues. I am happy to say that his researches are fine and as things stand we could be mutually helpful to one another. If he publishes his orchids, half of them will already be known. He could avoid this duplication by bringing to Europe the types of his new discoveries and thus none could gainsay him. It is well known to be impossible to produce a perfect work outside Europe. Dr. Asa Gray represents an exception as far as the flora of the United States is concerned. The botanists of India were themselves unable to accomplish this and therefore Dr. Thwaites completed this work with the help of Dr. Hooker and myself. Please draw the attention of your friend to these facts and tell him that I offer to publish his new discoveries under our joint authorship. He could thus be certain of taking a step forward which he could never make alone. Please let me know immediately his decision and advise him of my respect for a fellow plant lover. (Barbosa Rodrigues 1877)

The repercussions of Regnell’s support for Barbosa Rodrigues reached the Natural History Museum in Stockholm. Carl Wilhelm Hjalmar Mosen (1841-1887), who had stayed with Regnell in Caldas from 1873 to 1876 and worked at the Swedish Museum when he returned to Sweden, wrote in response to Clason’s questioning of the Brazilian in a letter written in July 1877: “This Brazilian botanist had been in Caldas previously, in Henschen’s time, and his name is Barbosa. He was in the Amazonian region for three years with a Brazilian government grant of 2000 crowns per month and is considered a deceiver both inside and outside Brazil. He claims, among other things, to have discovered 100! new species of palm trees, when only ten would have been too many, what Martius and about twenty others have done there exactly before him since it is not easy to pass a palm tree without noticing it. The palms differ easily by habitat and the locals know them all.” (Lindberg 2019: 164).

Even Reichenbach’s considerations about Barbosa’s publication did not discourage Regnell from supporting the Brazilian. In the same year, Barbosa Rodrigues published his work on orchids in two volumes, without the plates, explaining to everyone that he had already committed with the

⁷ Barbosa’s new genus was considered a homonym of a genus of palm published by Beccari in 1877. In an article published in the *Rodriguesia* journal, the researcher Honorio Monteiro Neto discusses the question of priority between Barbosa’s and Beccari’s works. (Neto 1980).

publishers Charles and Henry Fleuss and would not take the publication out of their hands. The influence and support of Regnell and his Swedish colleagues on the Brazilian botanist were evident through another Regnell's correspondence. In a letter to Salomon Henschen in February 1878, he thanked him for making his old friend, J. Barbosa Rodrigues, write *Genera et species orchidearum novarum* (Lindberg 2019: 161).

Barbosa Rodrigues, eager to keep of keeping the priority of his discoveries, published in 1875 the diagnosis of the palms he had collected during the three and a half years he spent in the Amazon region, promptly sending a copy of the work to the Kew Botanical Garden (Sá 2001).

Despite all the obstacles that Barbosa Rodrigues had to overcome to gain support for his publications and recognition among professionals in Brazil and abroad, he never gave up hope. With his combative spirit, he continued to expand his work on orchids and palm trees, responding to those who did not recognize his work and did not give him due credit through newspapers and publications. Some of his friends rallied around him and attempted to provide moral and financial support, including Guilherme Schüch, Baron of Capanema, a friend and patron.

Barbosa Rodrigues spent six years working in Capanema's Formicida factory, taking advantage of every opportunity to collect specimens and draw. As a result, he published *Orchideae Rodeinses et Alterae Ineditae*, in *Revista de Engenharia*, in 1881b. Rodrigues pointed out that the described species occurred in the virgin woodlands that surrounded his home at the top of Rodeio mountain and extended for many leagues from the railroad station of D. Pedro II, called *Oriente*, until Sant'Anna dos Mendes. He then made a grave denunciation of the disappearance of the forests due to the charcoal industry's activities in the region. "These forests are daily disappearing under the weight of the vandal axe of the charcoal burners," he says, "and it is what I have been observing as I constantly herborize and have collected many new species." Unfortunately, many disappeared with the deforestation provoked by the charcoal-burned fires (Barbosa Rodrigues 1881a: 109).

In 1880, Barbosa Rodrigues learned that Reichenbach was not participating in the *Flora brasiliensis*. Through correspondence exchanged

with the botanist Heinrich Wawra, it was clear to Rodrigues that he was the one designated to be in charge of the Monograph of Orchids in place of Reichenbach. Barbosa was so excited about this possibility that he asked Regnell for an exemplar of all his orchids that he didn't have.

Regnell immediately asked Carl Mósén to send duplicated specimens that were in the Swedish Museum to Rio de Janeiro because Barbosa had been tasked by Martius' successor, August Wilhelm Eichler, to elaborate *Orchidaceae* for the *Flora brasiliensis*. Mósén then wrote to Thore Fries, a botany professor at the Botanical Institute in Sweden who had also received specimens from Brazil, to send him those Brazilian materials so that he could forward them to the National Museum of Rio de Janeiro. In the letter, Mósén said: "If I had to decide, I would even send single specimens to Rio, since B. Rodrigues is the only connoisseur of Brazilian orchids now and for a long time, and what he has published so far is well done." (Lindberg 2019).

It is interesting to note that in the Mósén's opinion, Barbosa was no longer only a designer as he had expressed in the letter to Clason, but the "only expert on Brazilian orchids".

Barbosa's dream, however, was not realized. He wrote to the botanist August Wilhelm Eichler accepting the invitation, and to his surprise, Eichler replied that he had not authorized Wawra to make such an invitation to the Brazilian. He then offered Barbosa Rodrigues to send his material to Friedrich Wilhelm Ludwig Kraenzlin, who was then assigned to write about orchids in the *Flora*. Kraenzlin also declined to participate, and Célestin Alfred Cogniaux, a Belgian botanist, was invited in his place. After much negotiation, Barbosa Rodrigues finally agreed to the terms of participation and decided to work with Cogniaux on the orchid monograph in *Flora brasiliensis* (Barbosa Rodrigues 1882).

Conclusion

Barbosa's personality and scientific curiosity did not allow him to ignore various aspects of the environment and the population during his incursions through the Brazilian forests. It is worth noting that he embodied the ideal of the typical naturalist of the late 18th and early 19th centuries and did not limit himself to a few interests but examined all the living and non-living elements

that comprised the environment he studied. His inquiring mind extended beyond the collection of specimens for taxonomic description. The Brazilian naturalist always took notes on the use of local flora by natives and the local people in medicine, cooking, and housing; collected archaeological and geological material; studied the preparation of curare; and conducted ethnographic research and other activities. His plural interests and comprehensive perspective corresponded to the pattern of the illustrated men of the Brazilian court in the second half of the 19th century, when the borders between knowledge fields were still very porous. Barbosa Rodrigues was very self-confident, and this made him approach different subjects in which he had no formal instruction. Thus, the mistakes he made favored the criticism that was directed at him. The battles waged with researchers from the National Museum, such as João Batista de Lacerda on *curare* (Sá 2012). The criticism Barbosa directed at Ladislau Netto as scientist and legislator (Sá 2001) went beyond scientific discussions and ended with personal accusations in the newspapers of the time (Rio News 1892), generating a strong reaction of his opponent (Netto s/d).

Apart from his detractors, Barbosa Rodrigues' artistic and scientific work was not immediately recognized by his peers. His outstanding work on palm trees, *Sertum Palmarum Brasiliensium*, was published in 1903, while his magisterial work on orchids, together with the illustrations, only came to light 126 years later, after he had presented it to the scientific community.⁸ Notwithstanding his lack of formal instruction, his persistence established him as a man of science, obtaining respectability among his peers in Brazil and abroad. He built his career by transgressing the frontiers between the amateur and the expert, which limited, in some ways, his acceptance among the scientific circles at that time. He certainly overcame such limits after he directed two important scientific establishments in Brazil: the Amazon Botanical Museum, founded by him in 1883, and the Botanical Garden of Rio de Janeiro. In both institutions, he implemented innovative ideas in dialogue with their great European counterparts (Lopes & Sá 2016).

As Herman von Ihering pointed out in the article published on Barbosa Rodrigues: “we must also remember the mistakes to which he was led by

his daring theories. But these can in no way alter the great value of his scientific work, which is full of successes and discoveries. The late sage gave new impetus to the study of his country's flora and archaeology, and he is, without a doubt, the figure who stands out the most among the naturalists who were born here. His work and his discoveries are incorporated into the foundations of the monumental edifice that represents the scientific exploration of Brazil.” (Ihering 1911: 33).

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⁸ Barbosa Rodrigues (1903); Sprunger S et al (1996).

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